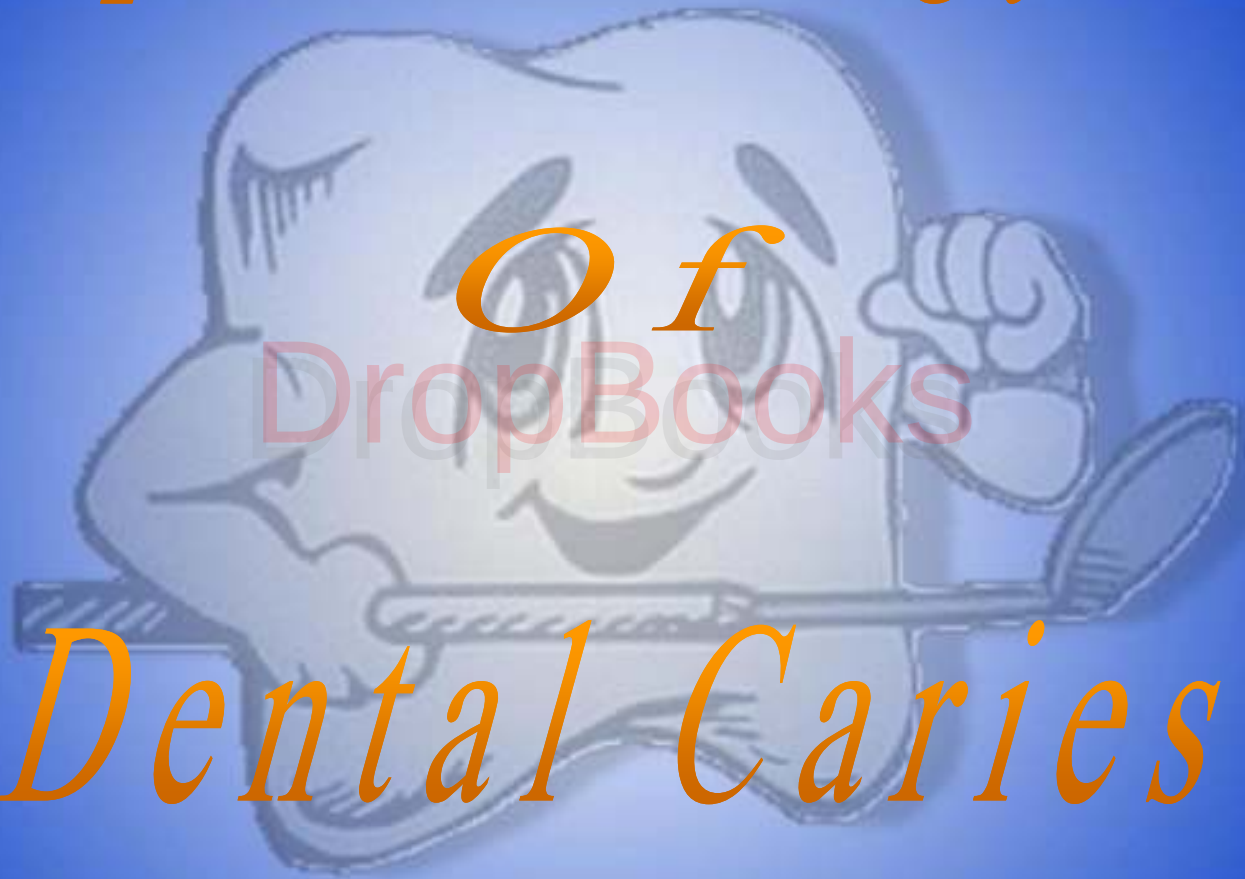


Epidemiology

Of

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Dental Caries



Dental caries is a chronic disease. It is the most prevalent chronic disease affecting man kind today. it is a continuous disease.

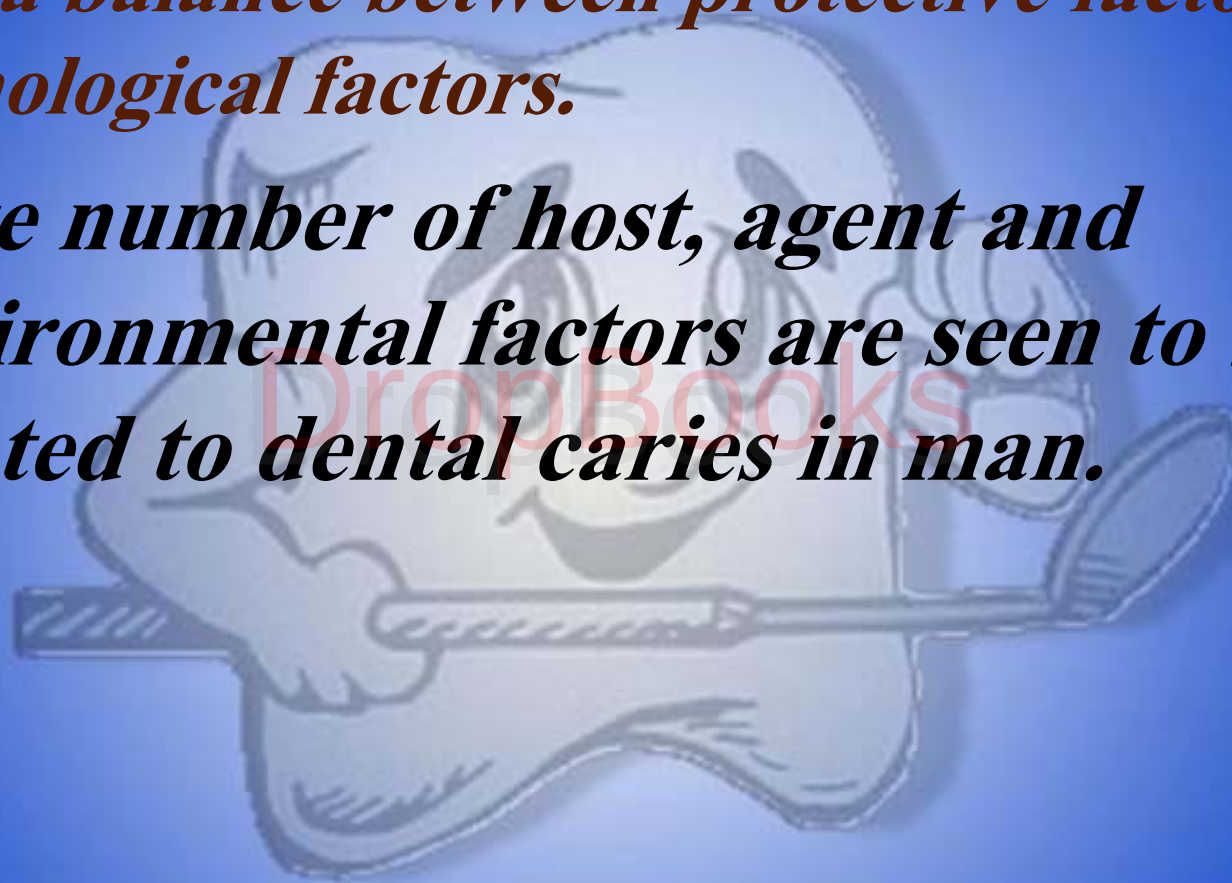
Mechanistic understanding of caries.

Clinically caries is conceptualized as a chronic disease with:

- 1. A multifactorial etiology.*
- 2. Dental caries is a site specific disease.*
- 3. It is dynamic process involving period of demineralization followed by period of remineralization*

- 4. Dental caries is an infectious disease it is transmissible.*
- 5. It is a balance between protective factor & pathological factors.*

A large number of host, agent and environmental factors are seen to be related to dental caries in man.



A- Host Factors:

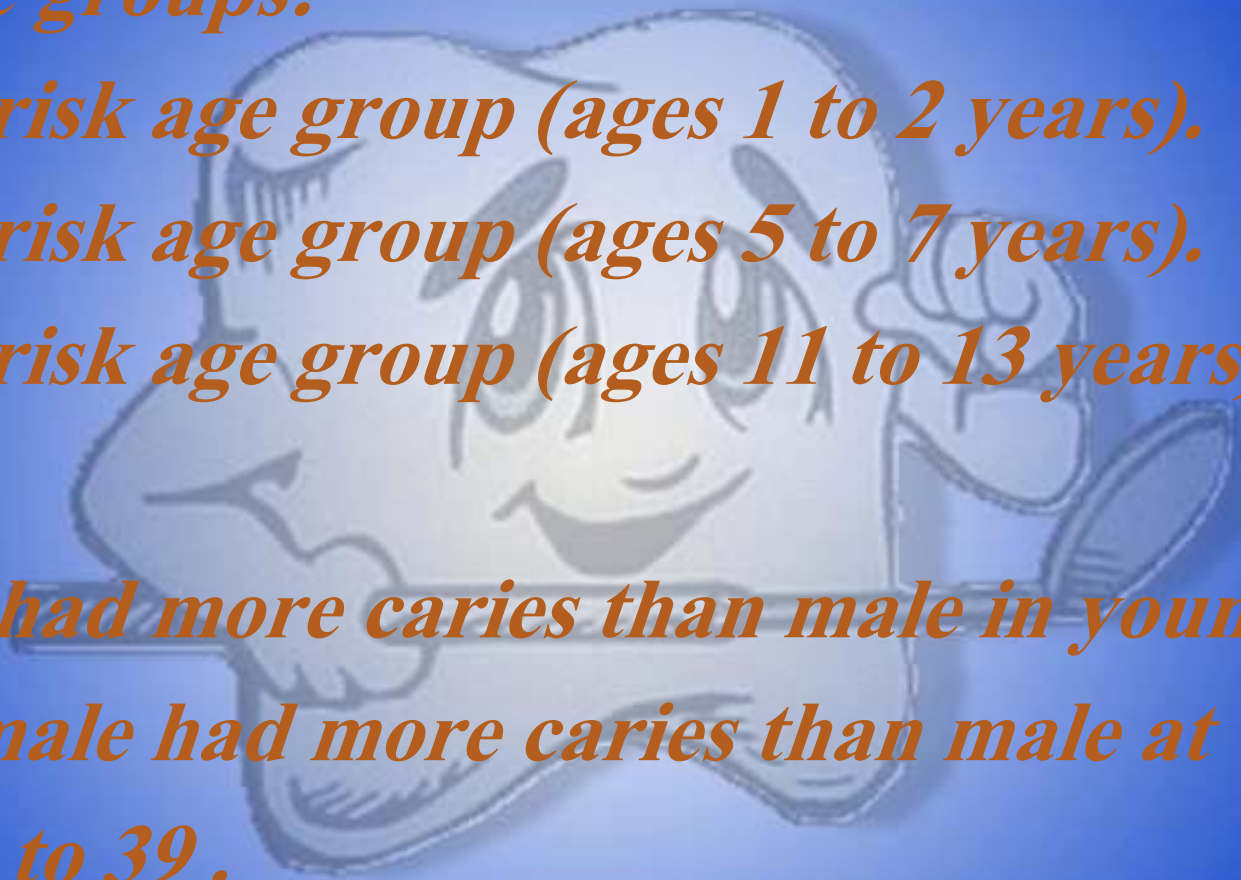
1- age.

Risk age groups:

- I. key risk age group (ages 1 to 2 years).*
- II. key risk age group (ages 5 to 7 years).*
- III. key risk age group (ages 11 to 13 years).*

2- sex.

Female had more caries than male in young ages
Also female had more caries than male at
ages 34 to 39 .



3- race.

4- familial hereditary.

5- emotional disturbances.

6- types of caries within the mouth.

❖ **According to location:**

1-enamel.

2-dentine.

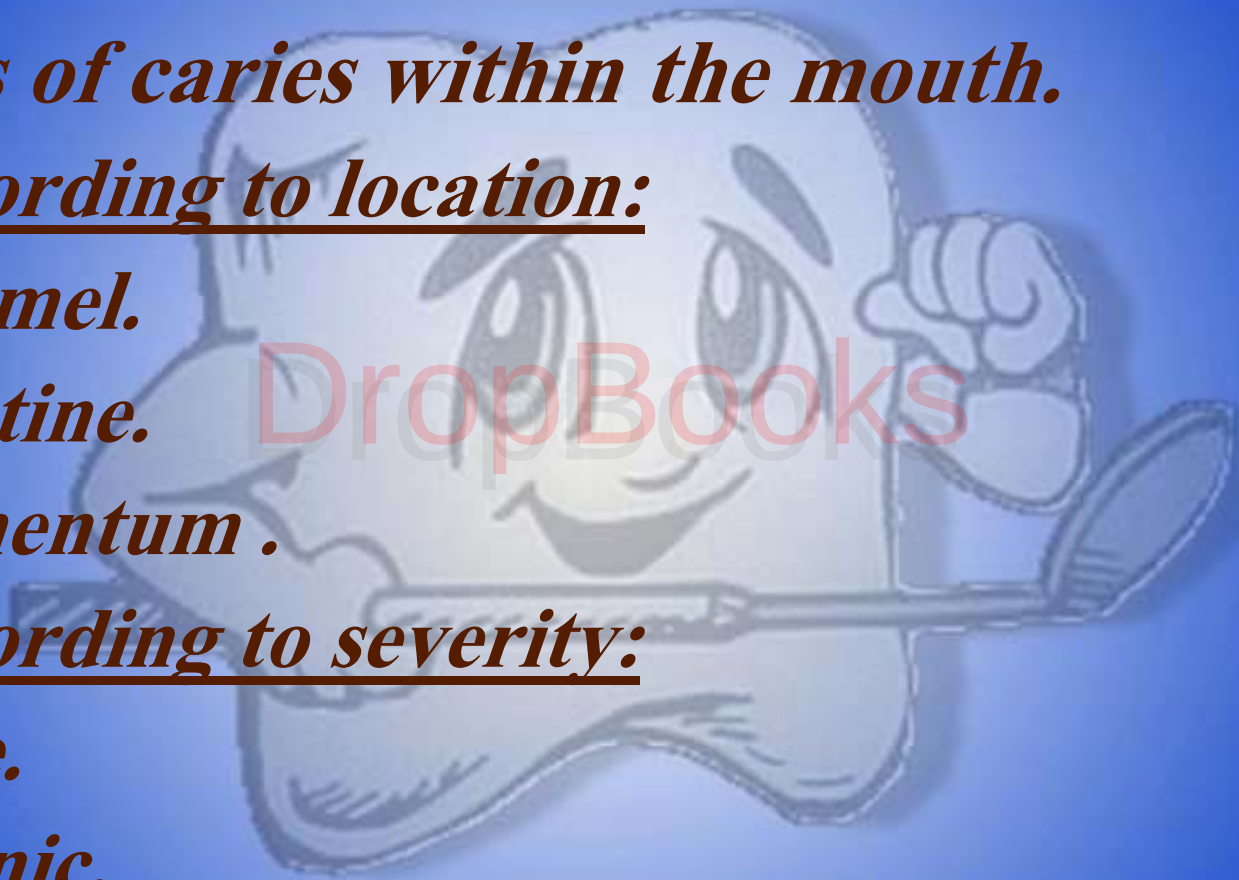
3-cementum .

❖ **According to severity:**

Acute.

Chronic.

Rampant.





Non-cavitated
carious lesions
(enamel)

***1-enamel
caries.***



Non-cavitated
carious lesion (enamel)





Caries in dentin

2-dentine caries.



Caries in dentin

❖ *According to cavitations:*

Cavitated or non cavitated .

Active or non active.

❖ *According to the surface:*

Pit and fissure caries.

Smooth surface caries.

Root caries.

❖ *Reversible or irreversible.*

Types of early childhood caries:

- *Type mild to moderate.*
- *Type moderate to severe.*
- *Type severe.*



Non-cavitated
carious lesions
(enamel)

non cavitated



Non-cavitated
carious lesions
(enamel)



Root caries



Early Carious
Root Lesions





*early childhood
caries*



B- Agent factors :

1- role of lactobacilli .

2- role of streptococcus mutants .

C- Environmental factors :

1- climatological factors .

Sun shine.

Temperature.

Relative humidity.

2- non climatological factors .

Fluoride.

Trace elements.

Nutrition.



D- Social factors.

E- Oral environments.



Epidemiology

Of

Periodontal Disease



The prevalence and severity of periodontal disease varied widely from country to country and from community to community even within the same community there may be deviation in severity associated with different host, agent and environmental factors.



*periodontal
disease*



Host Factors:

1- age.

Gingivitis is common in primary dentition of most children (eruption gingivitis) then the prevalence of gingivitis increase with age . chronic destructive periodontal disease occurred with older age group.

2- sex.

In U.S.A and Europe periodontal condition is better in female than male in less developed country female have worse periodontal condition than male.

3- race.

There is no pure racial factors are responsible for the difference between east and west.

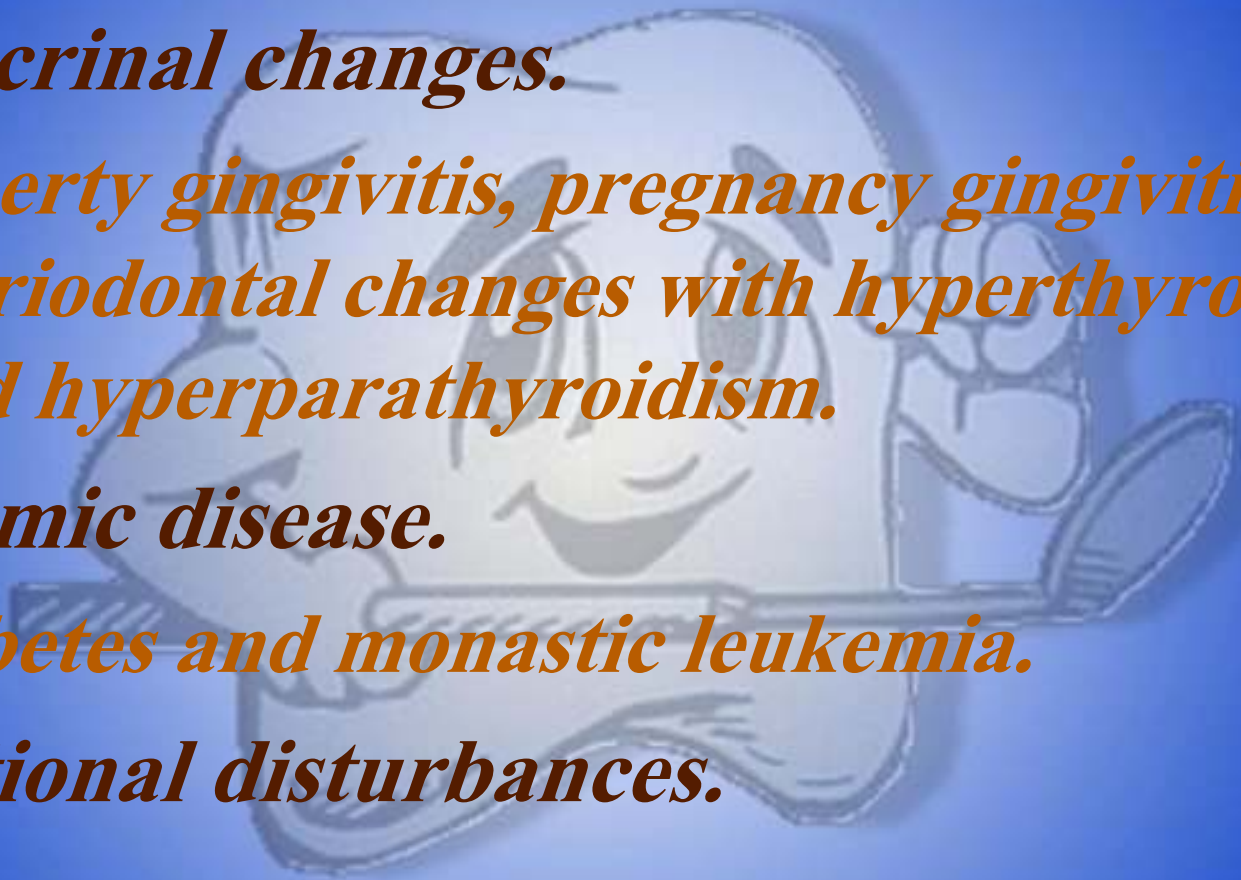
4- endocrinal changes.

Ex: puberty gingivitis, pregnancy gingivitis, periodontal changes with hyperthyroidism and hyperparathyroidism.

5- systemic disease.

Ex: diabetes and monastic leukemia.

6- emotional disturbances.





***Pregnancy
gingivitis***



7- traumatic occlusion or improper occlusion.

- ***Role of improper relation ship or carpal interlocking.***
- ***Improper contact between the teeth.***
- ***A third factor is disuse.***

8- intra oral variation .

The agent of periodontal disease

a) The role of microorganism:-

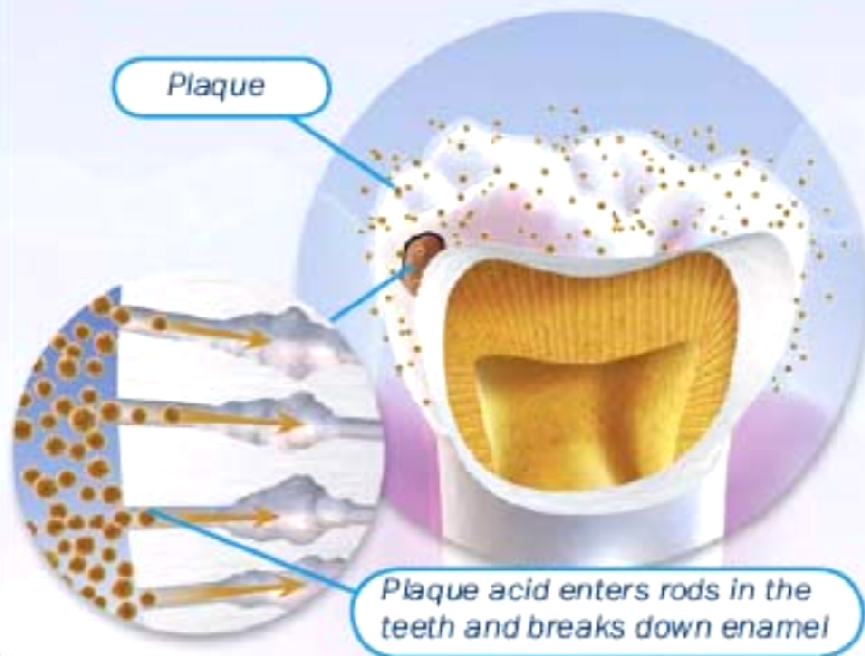
role of dental plaque "specific plaque hypothesis, non specific plaque hypothesis & ecologic hypothesis" factors affecting the amount and composition of dental plaques.



***traumatic
occlusion***



Plaque acid causes demineralization



***Dental
plaque***



b) The role of calculus environmental factors:-

1- geographic variations.

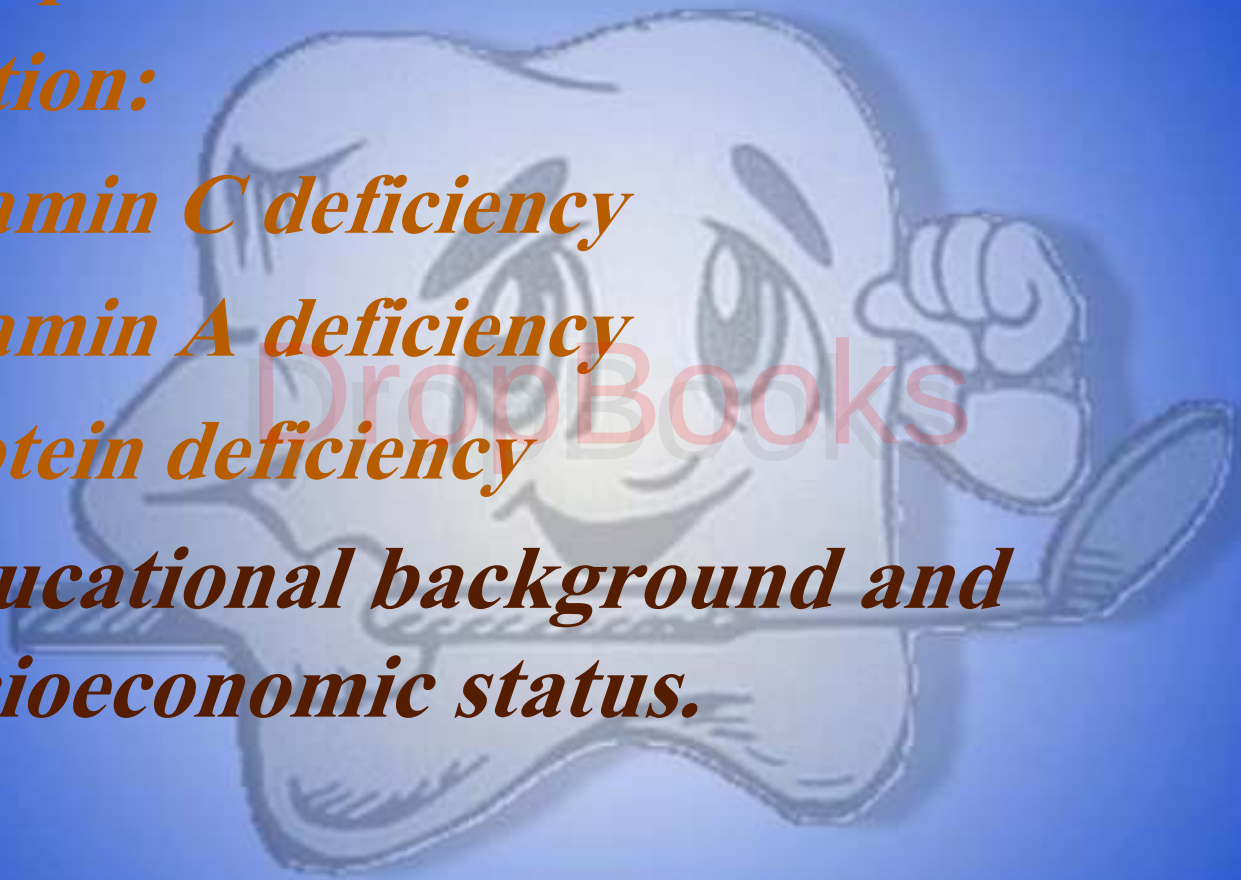
2- nutrition:

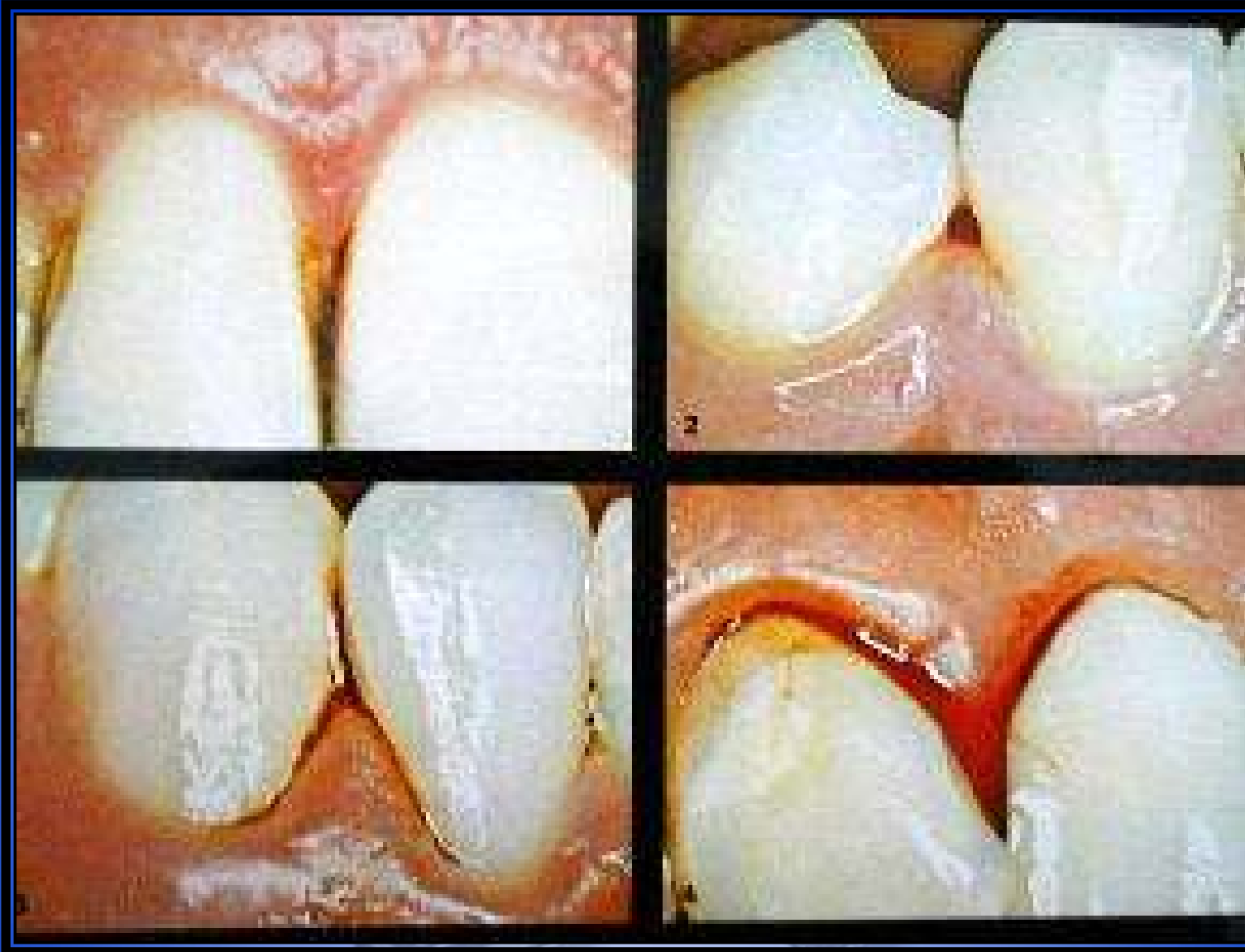
vitamin C deficiency

vitamin A deficiency

protein deficiency

c) Educational background and socioeconomic status.





vitamin C deficiency gingivitis

Thank You

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Thank You